# The future of online learning in India – an opportunity to democratise privilege?<sup>1</sup>

#### The purpose of education and the problem of disconnected learning gears in India

In one of the most successful memoirs in recent times, *Educated*<sup>2</sup>, Tara Westover pithily explains what pursuing schooling against all odds meant for her:

"Everything I had worked for, all my years of study, had been to purchase for myself this one privilege: to see and experience more truths than those given to me by my father, and to use those truths to construct my own mind...

You could call this selfhood many things. Transformation. Metamorphosis. Falsity. Betrayal. I call it an education."

For a vast majority of the 250 million children of school-going age and ~130 million young adults, education represents the only hope for transformation. Propelling oneself, despite all odds, to a different socio-economic level and the rewriting one's destiny – this remains the most valuable evidence for intergenerational equity that we must aspire toward.

Intergenerational equity is a commitment that we make to every child, regardless of their background, that we will invest in their future and give them a fair shot at transformation. This picture of students in Bihar gathering every night under lamp posts at a railway station to study and prepare for examinations will give you a sense of why this is important<sup>3</sup>.



<sup>&</sup>lt;sup>1</sup> This article has been written after extensive discussions with the team at Lightrock, India, an impact investment fund that has invested in ClassKlap and Eupheus Learning. I acknowledge and thank Kartik Srivatsa, Vaidhehi Ravindran, Arnab Dutta, Abhinav Shankar and Raghav Rungta for their contributions in fleshing out various ideas over the past six months.

<sup>&</sup>lt;sup>2</sup> Westover, Tara, Educated: A Memoir. New York: Random House, 2018.

<sup>&</sup>lt;sup>3</sup> "Indian students who study on railway platforms", https://www.bbc.com/news/world-asia-india-18353278.

Any transformative education system must be designed and implemented to maximise learning outcomes for the student. Enough has been said on the importance of personalising learning pathways and atomisation of a student's learning (the "chromosomal approach" to learning/instruction). A *quintessential* education system seeks to thoughtfully integrate the chromosomal approach within the framework of a cohort-based learning environment. The learning environment (i.e., the school, college, skilling programme) remains important as it provides a safe "space" for the students (physical or otherwise).

However, the following key challenges complicate this endeavour

- 1. *High potential for misalignment of incentives:* Achieving transformation with multiple active stakeholders (teacher, administrator, student and, where applicable, the parent) is a complex endeavour. As a result, interactions amongst the different stakeholders may not always be user-centric, especially since the payor (parent) is not always the user (the student). For e.g., there is large body of evidence that teaching at the right level is critical to help address endemic learning losses. This would mean classifying students according to demonstrated ability and not according to the grade-level determined by age. But for K-12 students, parents may object to this as it is unpleasant to hear that their child is struggling.
- 2. Long feedback loops; delayed insights: Feedback loops on learning and instruction occur at spaced intervals. As a result, the time to address a learning-gap may be long gone. For e.g., sitting for unit-tests when conceptual understanding is missing only harms the self-esteem of the student with little or no learning benefits. Students learn at their own pace and differently; therefore, a cohort-based learning environment with limited flexibility to personalise learning outside the classrooms does not help in most cases.
- 3. Ineffective allocation of resources: Most curricular programmes rely on teachers to supplement/design content (lesson plans, tests) and deliver content effectively throughout the year. There is limited recognition that delivery is a complex exercise which requires focus and structured guidance. Designing content for interactive play is not entirely outsourced by schools. Mixing the two not only unreasonably extends a teacher's working day (most of whom are women with family-obligations) but also prevents them from specialising in one of the two rather than doing both.

A reductionist view of this endeavour results in poor quality of standardised curriculum delivery at scale resulting in poorer outcomes necessitating efforts at supplementing the curricular education with tuition which seeks to personalise. However, even here, most students fail to navigate the debilitating chasm between standardised curriculum at school and supplemental effort. This is the problem of "disconnected learning gears" – an unintended consequence of adopting a poor quality of standardised curriculum.

Disconnected learning gears plague all education formats beyond K-12 - technical/vocational courses, skilling programmes and professional courses. For such programmes, the disconnect between what the academia teaches and its relevance within the industry is a chasm that never gets bridged.

However, the impact is most severe for children navigating schooling as the effects of endemic learning losses caused by such disconnect compound over time.



Thus, a complex failure across the value chain of education comprising family, community, and institution implies that most of India's student population struggles with endemic learning losses and remain uneducated despite being enrolled in schools. Irreversibility of learning losses becomes obvious much later when the student becomes unemployable in the labour market. This implies that our much-vaunted demographic dividend is diluted and never able to demonstrate its true potential.

#### Setting the context: three macro-trends

Before we proceed to explore the second and third order effects of Covid-19, it is helpful to summarise the three macro-trends which have deeply impacted the education sector.

A. For the first time in the history of the country, physical schools and colleges were shut for nearly 2 years and exams cancelled, leaving ~250 million students to their own devices and at home.

The pandemic effectively exacerbated the brewing learning crisis (to the surface), and accelerated its manifestation in a manner that was indiscriminate (rich and poor, literates and illiterates) and disproportionate (poor, more; illiterates, more). However, this emergency is not of the type that unifies people from diverse backgrounds toward a shared sense of loss. This is because despite access to cheap data, nearly 75% of urban children and 90% of rural students do not have access to appropriate hardware regularly and/or parental know-how to enable effective engagement.

For this India, lack of infrastructure, parental-detachment (from their role/responsibilities as teachersat-home), skewed incentives (that are aimed at solving the most lucrative piece of the pie), and a peripheralisation of the student as a passive-beneficiary (as opposed to their active role and their perceived autonomy toward learning) have meant that the learning crisis has become a learning emergency. As a complex, multi-variate education system hurtles towards enforced digitisation, if we want our aspirations as a nation to become a reality, the time has come for the quintessential to become essential.

B. For the first time in the history of education, the sector attracted significant private capital funding - nearly ~\$6B over two years.

Most of the capital has been concentrated across three companies who focus on K12 supplemental education and test preparation: Byju's, Unacademy, and Vendantu<sup>4</sup>. However, three other themes have received funding of at least \$100m and above:

<sup>&</sup>lt;sup>4</sup> <u>https://www.holoniq.com/notes/global-edtech-funding-2021-half-year-update/.;</u>

https://www.fortune india.com/enterprise/edtech-juggernaut-2-unicorns-38-bn-fund-raise/105740.

- a. Upskilling for professionals: Eruditus and Upgrad<sup>5</sup>
- b. School ed tech: LEAD, Eupheus Learning
- c. "Teacher-as-a-creator economy": Teachmint and Classplus<sup>6</sup>
- C. For the first time in the history of education, the Indian government has published an updated education policy that is truly reflective of the times we live in.

The National Education Policy<sup>7</sup> recognises the brave new world that we are in and encourages hybrid models of learning, importance of digital delivery, the need for light-touch regulation and most importantly, a renewed focus on learning outcomes.

#### Way forward: an opportunity to democratise privilege across three areas

A Covid-19-induced, precipitous shift to a purely digital delivery model has catalysed three major trends which are here to stay.

- Part I: A hybrid learning revolution among schools.
- Part II: Moving the higher education ecosystem toward increased accountability.
- Part III: Nascent signs of a real creator economy for teachers in India.

This note will throw light on the context for each development and how it is likely to evolve in the future.

#### Part I: The future of schooling in India - the hybrid learning revolution

Nearly half of India's 250 million children rely on private school providers for their curricular learning. Private school providers constitute 30% of the total number of schools in India (~450,000). 90 million students attend private schools' which charge between INR6,000 – INR12,000 in annual school fees (categorised as "affordable private schools"). 73% parents in India prefer private schools despite its inconsistent and variable quality and pricing (public schools charge no tuition fee)<sup>8</sup>. Parents believe that private schools provide better service and improved outcomes for students. It is obvious that the pandemic has caused unprecedented disruption to this segment. Our conservative estimate is that nearly 5% of affordable private schools are in distress with ~10-15% having to restructure their credit obligations.

Is this an obituary for physical classrooms? I don't think so. Supplemental ed tech "supplements" and cannot substitute schools. Given our socio-economic context, online schooling aggravates the disconnected learning gears<sup>9</sup> for families with limited access and/or discomfort with digital tools. Schools, on the other hand, provide the "learning environment" as a community for students outside of home, bundled with consistent, curricular learning. But more importantly, *schools provide safe day care*. If India wants its "productive" labour force to work, we need to liberate parents from 24/7 childcare. In our excitement over future of online learning, it is important to acknowledge this fundamental truth.

<sup>&</sup>lt;sup>5</sup> https://techcrunch.com/2021/08/11/india-eruditus-valued-at-3-2-billion-in-650-million-fundraise/.

 <sup>&</sup>lt;sup>6</sup> https://techcrunch.com/2021/10/25/indian-edtech-teachmint-valued-at-500-million-in-78-million-funding/.
<sup>7</sup> National Education Policy, 2020, https://ruralindiaonline.org/en/library/resource/national-education-policy-

<sup>2020/?</sup>gclid=Cj0KCQiAhMOMBhDhARIsAPVml-

ExihnqBO5uZyOqeP3Ws00oh2JIPDth8Nwph\_vyiKl6ju8JjERQGToaApYkEALw\_wcB.

<sup>&</sup>lt;sup>8</sup> https://centralsquarefoundation.org/Fact-sheet-State-of-the-Sector-Report-on-Private-Schools-in-India.pdf.

<sup>&</sup>lt;sup>9</sup> Srivatsa, Kartik, "250 million students in 250 million classrooms: the futureof school education in Indi" https://www.linkedin.com/pulse/250-million-students-classrooms-future-school-india-kartik-srivatsa/.

In a recent survey conducted by Road Scholar<sup>10</sup>, 90% of parents in urban areas and 97% of those in rural areas want schools to re-open. 75% of urban parents believe that reading abilities of their children has declined since the pandemic closed schools, despite a significant minority (23%) having access to online education during this period.

As schools strive to survive, many have long-term aspirations to rebuild better.

#### The resurrection of learning

Soon after the second wave, I carried out comprehensive/in-depth, qualitative interviews with administrators/teachers across 15 schools in India on how their practices have altered and those they are likely to persist with as the new-normal settles in. All the schools have a diverse student-profile (urban, peri-urban locations; first generation educated parents and others; different vocations/professions) and fee segments (between INR30,000 per annum and INR60,000 per annum) and represent mid-tier to premium school segments.

Based on the insights from the qualitative interviews, our analyses of the market landscape of Indian education, regulatory tailwinds (National Education Policy) and macro trends (increasing digitisation etc.), schools are looking to redefine their value proposition for building and executing learning pathways by doing the following:

- Accelerate their luddite rate of technology-adoption to demonstrate value to parents and because they realise that technology is an enabler. In our interviews, most schools alluded to how they had to re-engage with parents differently when they fell short of transition to online quickly and effectively. Today, schools also understand that the right technological tools can help them stay agile, help teachers become more productive, save costs and improve student engagement.
- Become more appreciative of supplemental ed-tech that complements their offering. Whilst curricular supplemental ed-tech has attracted tremendous attention (private capital, marketing/branding), schools view such offerings as tuition centres/coaching classes.
- Understanding that this transition is permanent, given regulatory tailwinds. Schools agree that the National Education Policy's shift to encourage hybrid learning has only been accelerated by the pandemic, although they remain conservative around its implementation timeline.

To understand if these trends are here to stay, we also looked at data on schools that we have across our education portfolio which serve affordable to mid-tier schools. Schools' ability to collect any fees depended strongly on whether they had managed to provide some form of online schooling since April 2020. Majority of schools (~65%) which did not provide any content were unable to collect any fees. We also understand from the market landscaping that there is increased demand for tech systems that help operate schools, even among mid-tier schools (by fee segments). Lastly, pilots for 21st-century-skilling such as coding, reading clubs or teacher training on running online classrooms have been hugely successful.

Given the above, this is an epochal moment in the history of private schools and that the adoption of technology geared toward improving efficiency & outcomes will only accelerate. As more curricular and co-curricular solutions are designed better with technology, schools will need a trusted partner who helps them connect the disconnected learning gears through active curation of multiple best-inclass learning solutions. A trusted partner is the fulcrum which will help schools rebuild their value proposition with parents and students.

<sup>&</sup>lt;sup>10</sup> https://roadscholarz.net/. ASER surveys tell a similar tale.



We have been at the forefront of envisioning an outcomes flywheel with a ring-side seat to that journey as we were early investors at ClassKlap – an educations solutions provider to affordable private schools. Here's what we learnt:

# 1. Platform trumps product

The ability to build a platform – physical, digital or "phygital" – with deep relationships across a wide variety of schools (differential fee segments, board-affiliations) is essential to move the needle within this ecosystem on outcomes. Among schools, any segmented approach (whether focused on a particular fee segment, product or a combination) may help build loyalty and therefore, the brand, but its scalability remains limited to its original network. Thus, to materially improve outcomes at scale and connect the disconnected gears, a secular go-to-market strategy is essential. In this context, I deliberately use the term "platform" over a distribution channel. The word "platform" assumes a two-way engagement between key stakeholders; it also implies designing the distribution channel for network effects that arise from customer insights which may not be ubiquitous otherwise. However, as we build the pipes, the transition to digital infrastructure that become progressively smarter is inevitable. Ultimately, schools will need to transition to reliance on technology-based interventions that sync with offline tools (such as books) and are scalable, reliable and provide progressively shorter feedback loops on student-learning and teacher-instruction.

# 2. Achieving scale through collaborative curriculum design with schools

Schools have a strong preference for partners who can provide a wide range of best-in-class products and, guarantee an ability to redesign such products to: (a) the school's socio-cultural context; and (b) their qualitative assessment of average student achievement (which may not always correlate with fees being charged). Repairing the disconnected learning gears is a labour of co-creation with schools. Nudging them towards it is more powerful than thrusting vertical integration upon them. Thus, in this world, modularity in offerings is a superpower, as is the ability to provide high-quality, responsive service.

# 3. Accelerating the Teacher Flywheel

There is limited appetite among schools and teachers to execute additional work arising from vendorpartnerships. This may arise from lack of capability or capacity and/or such effort is unaffordable to schools which run on tight budgets. No attempt to personalise learning pathway should harm the Teacher Flywheel. And ideally, any such attempt should support teachers to help them achieve autonomy, mastery and purpose.

# 4. Serving India's addressable market without "death by CAC<sup>11</sup>"

India's addressable market for supplemental ed tech is not large. By most recent estimates, it is less than \$5 billion, thereby resulting in mainstream players looking to global markets to bridge the gap between value and valuation. However, none of these providers can serve customers at \$100 or less per annum. This is a sweet spot which may be more accessible through schools where CAC-spend is negligible. If a curriculum solutions provider builds trust with a school, they would prefer that partner to provide supplemental ed that addresses different types of problem statements for that school. Thus, being "curricular-first", "classroom-first" is a critical advantage.

# 5. Re-hauling pricing – towards a scalable, service-led approach to pricing

It is important to adopt a service-led, value-based pricing strategy. Schools across different fee segments come with constraints unique to their offering. Adopting such a strategy helps drive engagement and customer stickiness, resulting in multiple opportunities to cross-sell and deepen the relationship.

Thus, high-quality solutions that empower schools to use physical spaces more effectively, whilst motivating and engaging students with improved online tools are the way forward.

# Part II: Overhauling India's higher education system – a shift toward radical accountability

Transformative higher education is a powerful lever that builds momentum for a person's future by:

- 1. unlocking access to capital, resources or networks that were previously inaccessible to them due to socio-economic barriers;
- 2. building 21st century skills and attitudes; and
- 3. challenging conditioning through exposure.

Whilst (1) and (2) augment a person's immediate employability, (3) is formative to their identity. Higher education has tremendous potential to enable socio-economic upward mobility whilst simultaneously enhancing labour force productivity.

Unlike schools which double-up as day care, colleges need not offer quasi-parental services. For this cohort, while parents may continue to be payors, their role is more nominal and not key to decision-making on education type, quality or outcomes.

Given the disruption in this space caused by closures of physical classrooms and enforced digitisation, we have a unique opportunity to transform the higher education ecosystem in India. The enforced digitisation has compelled students to realise that not all physical higher education experiences are valuable or equal, especially as the future of work itself undergoes a radical transformation.

<sup>&</sup>lt;sup>11</sup> Customer Acquisition Cost.

Before we dig deeper into this phenomenon, it is important to frame the context for relevance/purpose of higher education within the future of work which in itself has undergone a sweeping transformation.

### Future of jobs

As ~\$2200 per capita economy<sup>12</sup> aiming to become a \$10,000 one, India has failed to formalise its economy to help its 63 million small enterprises scale and augment the ~15,000 large enterprises that exist today. We have jobs, but our wages are not rising fast enough. Our women labour force participation has been declining for the past 10 years<sup>13</sup>. Only 45% of our graduates are employable<sup>14</sup>. We have not succeeded in building out an apprenticeship ecosystem outside of technical degrees. Our struggle to scale manufacturing and provide that as an intermediate safe landing to our farmers continues.

Despite all the gloom, we have managed to build out world-class software engineering talent which is at the cusp of leveraging the new future of work<sup>15</sup>. Converging waves of accelerating technology across domains is reducing the costs of doing business outside of large-scale enterprises and, leading to a world with distributed workforce and new type of leadership/management. The pandemic has only accelerated this shift. The future of work is here and it is digital. As Mckinsey Global Institute described in its most recent survey on the future of work<sup>16</sup>, the following types of skill have become foundational for this age:

- Those which add value beyond what can be done by automated systems and intelligent machines
- Those which enable operating in a digital environment
- Those which help continually adapt to new ways of working and new occupations

India produces as many software engineers in a year as all of Europe. Given our status as a world leader in software engineering talent, there is an opportunity to dig deep and make digital literacy the primary means for enabling wage premiums; to build out business models that enable SMEs to scale through aggregation and serve international markets, thereby leveraging the non-formal SMEs ecosystem to our advantage. This is in addition to serving domestic consumption which is expected to rise as India grows.

To serve this digital future of work, it is important to avoid the congenital, structural flaws that plague our higher education system even as we design to overhaul and replace this ecosystem.

# State of the Nation

India has nearly 50,000 colleges, universities and technical institutes. 60%+ are in rural areas. 60% of the total are privately funded and contribute toward 40% of the total enrolment. The total enrolment as it stands today is at 35 million which is a gross enrolment ratio of 27%. In comparison, developed

<sup>14</sup> https://indiaeducationforum.org/pdf/ISR-2021.pdf.

<sup>&</sup>lt;sup>12</sup> https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IN.

<sup>&</sup>lt;sup>13</sup> https://www.reuters.com/world/india/indias-female-labour-participation-rate-falls-161-pandemic-hits-jobs-2021-08-

<sup>03/#:~:</sup>text=The%20female%20labour%20participation%20rate,and%2033.7%25%20in%20Sri%20Lanka.

<sup>&</sup>lt;sup>15</sup> https://the-ken.com/story/indias-tech-crunch-the-battle-for-tech-talent/.

<sup>&</sup>lt;sup>16</sup> https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work.

markets have gross enrolment ratios of > 50%. China's is at 43%. At an average of ~1200 students per college, the higher education ecosystem is fragmented.  $^{17}$ 

Past regulatory preference for physical infrastructure over learning/job outcomes, inability to cultivate vocational colleges and impaired ability to attract high-quality talent at scale has left us a legacy of broken promises and a vicious cycle of: (i) fragmented supply of infrastructure (ii) poor quality human capital deployed in colleges (iii) pedagogy which divorced learning from outcomes. The legacy regulatory skew toward physical infrastructure has also only encouraged business models which are extremely capital-intensive. Such models are unable to attract kosher private capital, thus aggravating the situation.

Today, we have a deeply inequitable ecosystem where the top 15% of colleges drive millions to attempt an array of entrance examinations whilst the bottom 85% have limited accountability. That the top 15% cater to those who can afford \$11,000 or more further limits the country's ability to build a robust talent pipeline for the future.

However, the tailwinds of the New Education Policy, 2020 (with online degrees being permitted), private capital in ed-tech, a revolutionary rate of adoption of online learning are all catalysts which can help us redesign the landscape of higher education for accountability and outcomes. This shift will enable students to undertake higher education as an active, deliberate choice to accelerate their socio-economic mobility, rather than sleepwalking into it due to perceived lack of choice.

#### The route to transformation

We need to repair, rebuild and transform a broken ecosystem. We recommend designing solutions around three core themes:

1. Unbundling job-readiness from higher education. We need the smartest and most businesssavvy minds of this country to help rebuild and the brightest to join the journey so that it becomes a movement. By unbundling job-readiness from higher education, we improve the talent pool which wants to own solutions. Doing so also radically transforms the narrative on accountability – a clear focus on jobs will attract the brightest and the most ambitious to experiment and participate.

Students don't require a degree to become digitally literate or acquire 21st century skills that are needed for an increasingly digitized world. For many, job-readiness could be a curation of such skills with robust apprenticeships that sets them on the path to mastery. Digital, alternative career schools may remove the need for higher education if they cater to basic skilling. If such avenues help students achieve mastery with respect to the core digital skills, thereby radically enhancing job-readiness, students may be persuaded to not pursue meaningless degrees. Instead the focus can truly shift to continuous learning – the need of the hour in an ever-changing world of work.

2. Building capital-light, digital-first models which can leverage smaller pool of high-quality talent more effectively, at lower cost. This will unlock pedagogies which guarantee outsized outcomes, at scale. It is not possible to build a higher education system which depends on large pools of high-quality talent. Historically, such a constraint has never been satisfied – whether for K12 or higher ed.

<sup>&</sup>lt;sup>17</sup> National Education Policy, 2020, https://ruralindiaonline.org/en/library/resource/national-education-policy-2020/?gclid=Cj0KCQiAhMOMBhDhARIsAPVmI-

ExihnqBO5uZyOqeP3Ws00oh2JIPDth8Nwph\_vyiKl6ju8JjERQGToaApYkEALw\_wcB.

If we reflect on this some more: the legitimacy of online learning as a delivery mechanism was growing prior to the pandemic; following the pandemic, given the extensive adoption, the world has transformed. Technology will drive delivery rather than merely leading on content creation.

3. Adopting cohort-based learning methods at scale, using technology. This will be key to repairing endemic learning losses of most candidates who pursue higher education. Only 45% of our graduates are employable. The remaining 55% lack skills that their degrees supposedly bestow. Such a monumental failure in skilling our youth damages their long-term career outcomes, makes our labour force unproductive as talent gets underemployed and is discouraged from enrolling in higher education. There is an urgent need to repair the employability of graduates as we leverage the demographic dividend that we enjoy.

#### Transformative models

Transformative models in higher ed will be agile, focused on capital-light delivery mechanisms which maximise learning outcomes for the 21st century job market. These models will be designed for accountability and seek to rebuild the trust between students and the industry. Such models may be designed for different stages in the lifecycle of higher ed – either to prepare students, repair unemployable graduates or, provide high-quality, affordable higher education at scale which disrupts the status quo. Regardless, to become successful, they must support/design/curate for/deliver a rigorous pedagogy which is built for mastery over 21st century life skills, even if these are for job profiles that are more near-term. Since education is a deeply aspirational good, it is critical that every vision is crafted with a view to building a strong brand that stays the test of time, even if the path is unclear today.

As the success of MOOCs and the growth of competitors in this space demonstrates (bootcamps such as Udacity, General Assembly), students care for relevant, outsized outcomes typically linked to improved employability or career advancement. Organisations which can guarantee jobs of the future through outsized outcomes are the ones who will be able to build and sustain a strong brand. The accelerated growth of Indian upskilling platforms such as Simplilearn, Eruditus, Great Learning and Upgrad, despite the presence of global competitors, is a testament to this transformative play.

Eventually, all such models will indeed be regulated. However, we trust and hope that this new phase disruption will be met with a regulatory approach of a different flavour – a more "light touch" approach as advocated in the NEP.

# Part III: Leveraging education sector's bias for "hyperlocal" brands: the "teacher-as-a-creator" economy

Whilst venture capital in India's education sector has been limited to specific companies, most of India's education sector is hyperlocal, disaggregated and led by solopreneurs. Such solopreneurs either set up independent schools or lead test prep centres within a 5-km radius. Most are part of nearly 700,000 coaching centres in India, each of whom cater to a wide variety of exams (national ones such as NEET/IITJEE/UPSC or local state-ones).

Since access is no longer a constraint, the hyperlocal, disaggregated education market lends itself to a "creator economy" of teachers who now have the ability to scale their income by building digital channels to acquire, engage and retain students<sup>18</sup>.

<sup>&</sup>lt;sup>18</sup> https://economictimes.indiatimes.com/prime/technology-and-startups/from-unacademys-graphy-to-teachmint-how-tech-platforms-are-driving-the-teacher-creator-economy/primearticleshow/85844790.cms.

From live to recorded content, from masterclasses to selling content of other education experts, these creators are the forefront of a mini-revolution that seeks to leverage the brand power of such tutors and help them monetise their content more effectively.

Whilst user-generated-content models such as YouTube have been around for 10+ years, most nondigitally native teachers find it difficult to leverage such channels to sustain and grow their student base. With the advent of businesses which support such solopreneurs in India and elsewhere, there has been a transformative movement toward unlocking the power of internet for the ambitious teacher. In India, companies such as Classplus and Teachmint lead the way, whilst globally Kajabi, Hotmart and Thinkific<sup>19</sup> have pioneered the shift to helping teachers build meaningful livelihoods as creators.

#### Conclusion

In his seminal and prophetic lecture on the future of education, Richard Buckminster Fuller, one of the great renaissance figures of the twentieth century, envisioned a gradual shift of pedagogy toward chromosomal learning<sup>20</sup>. There is one passage that is especially worth reproducing here:

"Real education, however, will be something to which individuals will discipline themselves spontaneously under the stimulus of their own ticker tapes — their individually unique chromosomes. All people have their own chromosomal patterns. No two persons have the same appetite at the same time. There is no reason why they should. There is no reason why everyone should be interested in the geography of Venezuela on the same day and hour unless there is some "news" event there, such as a revolution. However, most of us are going to be interested in the geography of Venezuela at some time — our own time — but not all on the same day. Simultaneous curricula are obsolete."

Whilst a *chromosomal approach* to education may still feel like a dream to millions of Indian students, the unprecedented and accelerated adoption of online learning by students and teachers due to the pandemic has made this transformation more real than what it used to be.

For the first time in the history of digital learning in India, there has been a confluence of the following: (a) transition of a significant percentage of teachers from physical to digital delivery, (b) a flood of private capital and (c) regulatory shift that encourages the use of technology in learning. There has been a material shift in consumer behaviour due to the duration and intensity of pandemic-driven digitisation of learning. The ecosystem has matured enough for stakeholders to realise that online learning is an incredibly important, capital-light tool which can radically transform access to high-quality instruction without taking away the central role played by teachers in improving learning outcomes. It has also become evident that more needs to be done to ensure that swathes of students don't get left behind, starting with going back to school. There is a growing understanding that offline and learning experiences are not equals competing with each other. Online learning allows for more testing, quizzing and peer learning which may not be possible during offline classrooms. During the next phase of evolution, instructors of all variety will enhance their ability to engage with their students using online learning. Designing for cohort-based learning experiences may result in improved student and teacher experiences.

We anticipate that this simple yet powerful acknowledgement of the role of online teaching and learning models will drive better access and improved outcomes which will ultimately benefit the most critical stakeholder – the student.

<sup>&</sup>lt;sup>19</sup> https://www.classcentral.com/report/thinkific-ipo/.

<sup>&</sup>lt;sup>20</sup> Education Automation: Freeing the Scholar to Return to His Studies.

Whilst for K12 student, this will result in increased adoption of more hybrid forms of learning, we anticipate radical disruptions in the higher education ecosystem. Lastly, there are early signals that the teaching profession has finally transitioned to viewing technology-led delivery as deeply aspirational and a method to augment their skills, income and brand. The nascent "teacher-as-acreator" economy is an extremely positive development, geared to sustain this evolution.